



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/759,817

01/16/2004

George Garrity

MSU-08334

8033

23535 7590 06/16/2008

MEDLEN & CARROLL, LLP
101 HOWARD STREET
SUITE 350
SAN FRANCISCO, CA 94105

EXAMINER

ZEMAN, MARY K

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

06/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/759,817	Applicant(s) GARRITY ET AL.	
	Examiner Mary K. Zeman	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-18 are pending in this application.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. At pages 19 and 20, html addresses are used in illustration of an example. It is unclear whether these are intended to be fictional, or whether these html addresses are functional.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The steps of the method of claim 1 fail to meet the intent of the preamble. The preamble states that the claim is to a method of resolving ambiguity between names and entities. The steps of the method provide names, assign names to an object, and store those objects. There are no steps for resolving or even identifying any ambiguity. Step a does not set forth that the plurality of names are for the same object, nor does it set forth how to resolve issues where several names

Art Unit: 1631

are used to identify the same item. merely assigning a unique locator address to each name does not resolve any ambiguity. Further, the preamble states that the method uses "an information architecture" however, step c uses "an information structure" which is not necessarily the same.

None of the dependent claims address these issues.

In claim 18, the steps of the methods do not meet the goal of the preamble. The preamble states that the intent is to provide taxonomic and nomenclatural services. The steps of claim 18 merely provide objects, make identifiers and provide routing. This is not providing a service, nor is it actually providing a taxonomy, or nomenclatural service. The objects and names are provided by the user, and the steps of the method merely provide a digital resource link. It is suggested that the multiple clauses within step (d) be made into actual steps of the method manipulating the information provided by the users.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to methods of manipulating data, wherein the methods do not provide either a transformation of matter, or a concrete, tangible and useful result, as required. The steps of the rejected methods merely manipulate provided data and store it, without any output of a concrete, tangible and useful result. The "system" of claim 17 is non-statutory, as it recites no real-world attributes, and may completely reside in software. Even if claim 17 were to recite hardware components, the method executed by that system must provide a concrete, tangible and useful result.

For claims including such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature, or natural phenomenon. *Diehr*, 450 U.S. at 187, 209 USPQ at 8 ("application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."); *Benson*, 409 U.S. at 71, 175 USPQ at 676 (rejecting formula claim because it "has no substantial practical application").

Art Unit: 1631

To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways:

- 1) The claimed invention “transforms” an article or physical object to a different state or thing.
- 2) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

Practical Application That Produces a Useful, Concrete, and Tangible Result

For eligibility analysis, physical transformation “is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application.” AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452... In determining whether the claim is for a “practical application,” the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is “useful, tangible and concrete.” (1) “USEFUL RESULT” For an invention to be “useful” it must satisfy the utility requirement of section 101. The USPTO’s official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. MPEP § 2107 and Fisher, 421 F.3d at ___, 76 USPQ2d at 1230 (citing the Utility Guidelines with approval for interpretation of “specific” and “substantial”). (2) “TANGIBLE RESULT” The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.” (3) “CONCRETE RESULT” Another consideration is whether the invention produces a “concrete” result. Usually, this question arises when a result cannot be assured. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable.

See also: 1300 OG 142, 11/22/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Lilburn et al. (9 May 2003).

Lilburn et al. (Int. J of Systematic and Evolutionary Microbiology, 2004, 54:7-13, published online 9 May 2003) discloses methods of resolving ambiguity between named sequences in a taxonomy through providing the sequences and their location/names, assigning them a persistent identified information object (location) and storing those objects in a database. The names are of biological objects- taxonomic names, genes sequences and molecules. The data can be grouped in a variety of ways, depending on the taxonomy applied. the objects allow information gathering from third party sources. Systems implementing the methods are also disclosed. As such, Lilburn anticipates the claimed invention.

It is noted that one of the named inventors is a co-author of this paper. Therefore, the Examiner points out that the publication date is prior to the filing date of the invention, and with a differing inventorship/authorship. Therefore, this publication is properly applied under 102(a).

Claims 1-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Cole et al. (2003).

Cole et al. (Nucleic acids research 2003, 31:442-443)) discloses the RDP-II system which provides methods of resolving ambiguity between named sequences in a taxonomy

Art Unit: 1631

through providing the sequences and their location/names, assigning them a persistent identified information object (location) and storing those objects in a database. The names are of biological objects- taxonomic names, genes sequences and molecules. The data can be grouped in a variety of ways, depending on the taxonomy applied. the objects allow information gathering from third party sources. As such, Cole anticipates the claimed invention.

It is noted that one of the named inventors is a co-author of this paper. Therefore, the Examiner points out that the publication date is prior to the filing date of the invention, and with a differing inventorship/authorship. Therefore, this publication is properly applied under 102(a).

Claims 1-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Cornell et al (2003).

Cornell et al. (Yeast 2003, 20:1291-1306) discloses the GIMS integrated data storage and analysis system. This system creates an order from data objects provided by a user. Each data object/name provided by the user is given a unique addressable identifier (object) which is stored and manipulated to create ontologies, and taxonomies. The system is specifically for biological molecules, genes, proteins, sequences etc. The system can incorporate third party information. As such, Cornell anticipates the claimed invention.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Cyrus et al. (US2005/0038776).

Cyrus et al. provide an object oriented database system for managing bioinformatic data. Tables I and II illustrate the object oriented design wherein individual data is assigned a particular object identifier, which is then stored. The data can be anything related to the object including name, properties, and relationships. Third party information and databases are readily accessed through each object as desired. As such, Cyrus anticipates the claimed invention.

Claims 1-18 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Remsen et al (US 2003/0167283).

Remsen provides a universal organism name resolution and classification system. This system is an object oriented database for resolving names and classification of organisms.

Art Unit: 1631

Biocentric information (scientific name, trivial name, properties, identifying characteristics, as well as third party information) is used in the system. The system is used to provide taxonomic services. Organismal name information is provided, and a particular object is assigned to that name. Using the object, the name is matched or correlated with stored information to provide a taxonomic name and organizational assignment in a hierarchy. The system uses Taxon tables and a classification table. The Taxon table consists of taxon identifiers, a name table where each entry is associated with a taxon identifier and a classification table. A taxon is associated with semantic data and syntactic data. Data sources can be static or dynamic, and may be third party data sources. As such, Remsen anticipates the claimed invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bowman-Amuah US 6539396 discloses well known information architectures for storing and resolving issues of named objects.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (571) 272 0723

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjie Moran can be reached on (571) 272 0720. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

Art Unit: 1631

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

/Mary K Zeman/

Primary Examiner, Art Unit 1631